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Datasheet for ABIN988230 SDF1 beta Protein

Overview

Quantity:	1 mg
Target:	SDF1 beta (SDF1b)
Origin:	Mouse
Source:	Escherichia coli (E. coli)
Biological Activity:	Active

Product Details

Sequence:	KPVLSYRCP CRFFESHIAR ANVKHLKILN TPNCALQIVA RLKNNNRQVC IDPKLKWIQE YLEKALNKRL K
Characteristics:	Fully biologically active when compared to standard. The ED50 determined by a chemotaxis bioassay using human peripheral blood T-lymphocytes is less than 30 ng/ml, corresponding to a specific activity of $> 3.3 \times 10^4$ IU/mg.
Purity:	> 97 % by SDS-PAGE and HPLC analyses.
Endotoxin Level:	Level Less than 1EU/ μ g of rMu SDF-1 beta /CXCL12 as determined by LAL method

Target Details

Target:	SDF1 beta (SDF1b)
Alternative Name:	SDF-1 beta/cxcl12 (SDF1b Products)
Background:	SDF-1 ^a and SDF-1beta, members of the chemokine ^a subfamily that lack the ELR domain, were initially identified using the signal sequence trap cloning strategy from a mouse bone-marrow stromal cell line. These proteins were subsequently also cloned from a human stromal cell line

Target Details

as cytokines that supported the proliferation of a stromal cell-dependent pre-B-cell line. SDF-1^a and SDF-1beta cDNAs encode precursor proteins of 89 and 93 amino acid residues, respectively. Both SDF-1^a and SDF-1beta are encoded by a single gene and arise by alternative splicing. The two proteins are identical except for the four amino acid residues that are present in the carboxy-terminus of SDF-1beta and absent from SDF-1^a. SDF-1/PBSF is highly conserved between species, with only one amino acid substitution between the mature human and mouse proteins. SDF-1/PBSF acts via the chemokine receptor CXCR4 and has been shown to be a chemoattractant for T-lymphocytes, monocytes, pro- and pre- B cells, but not neutrophils. Mice lacking SDF-1 or CXCR4 have been found to have impaired B-lymphopoiesis, myelopoiesis, vascular development, cardiogenesis and abnormal neuronal cell migration and patterning in the central nervous system. . Synonym: SDF-1 beta/CXCL12, Mouse. Formulation: Lyophilized from a 0.2µm filtered concentrated solution in 20mM PB, pH 7.4, 150mM NaCl.

Molecular Weight:	8.5 kDa, a single non-glycosylated polypeptide chain containing 72 amino acids.
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Application Details

Restrictions:	For Research Use only
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Handling

Format:	Lyophilized
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Reconstitution:	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at < -20 °C. Further dilutions should be made in appropriate buffered solutions.
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Storage:	4 °C
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